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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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DORSEY & WHITNEY LLP
INTELLECTUAL PROPERTY DEPARTMENT
SUITE 3400
1420 FIFTH AVENUE
SEATTLE, WA 98101

EXAMINER
JARRETT, SCOTT L

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/825,153	JACOBS ET AL.
	Examiner	Art Unit	
	Scott L. Jarrett	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*27 February 2006*</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-15,20-26 and 35-41* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-15,20-26 and 35-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>*9/22/05, 2/27/06*</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.1 14, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.1 14. Applicant's submission filed on

February 27, 2006 has been entered.

Applicant's amendments amended claims 11-15, 20-25 and 35-41 and canceled

claims 1-10, 16-19, 27-34 and 42. Currently Claims 11-15, 20-26 and 35-41 are

pending.

Response to Amendment

2.   The objection to the Title in the pervious office action is withdrawn in response to

Applicant's amendment to the Title.

The objection to the Information Disclosure Statement in the previous office

action is withdrawn in response to Applicant's amendment to the Specification.

Response to Arguments

3.   Applicant's arguments with respect to claims 11-15, 20-26 and 35-41 have been

considered but are moot in view of the new ground(s) of rejection.

It is noted that the applicant did not challenge the Officially Noticed fact(s) cited in the previous office action(s) therefore those statements as presented are herein after prior art. Specifically it has been established that it was old and well known in the art at the time of the invention:

- to assign a variable (custom, unique) label to a rule (set of rule, constraints, parameters, etc.) as a means for identifying, managing, accessing, and manipulating rules (data, constants, constraints, etc.);

- to use delimiters (text or otherwise) as a means for visually or programmatically distinguishing (identifying) a plurality of parts (sections, operators, modules, etc.); and

- to include a set operator as part of a rules/inference engine as a means for grouping information (data, elements, etc.) of interest.

Claim Objections

4.   Claim 12 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Regarding Claim 12, both Claims 11 and 12 recite the limitation wherein the programmed constraint set comprises programmable rules and constants.

Claim 39 is objected to because of the following informalities: Claim 39 contains a grammatical error, "when comparing a workers to an order" (emphasis added) instead of the intended "when comparing a workers to an order." Appropriate correction is required.

Claim Rejections - 35 USC § 112

5.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

6.   Claims 1, 13, 21-24 and 26 are rejected under 35 U.S.C. 112, second paragraph,

as being indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention.

Regarding Claim 1, Claim 1 recites the limitation "controlling the flow of execution

of the rules." Examiner requests clarification as to which rules, configurable or fixed,

has their flow of execution altered.

Examiner interpreted the claim to read that any of the set of configurable, fixed or

both sets of rules has their flow of execution altered for the purposes of examination.

Regarding Claim 13, Claim 13 recites the limitation "the first set of rules" in Claim

12. There is insufficient antecedent basis for this limitation in the claim.

Examiner interpreted Claim 13 to read "*a* first set of rules" for the purposes of

examination.

Regarding Claim 21, Claim 21 recites the limitation "invoking the set of rules."

Examiner requests clarification as to which set of rules, the set of fixed business rules,

the set of configurable rules or both, is invoked from defined locations.

Examiner interpreted the claim to read that either the set of fixed, configurable or both sets of rules is invoked from defined locations.

Further regarding Claim 21 the disclosure does not clearly define the phrase "defined locations in a negotiation algorithm." The phrase "defined locations in a negotiation algorithm" is very subjective and interpretations of the terms vary widely depending on the person practicing the invention thereby making the phrase vague and indefinite. The intended scope of such terminology is unclear thereby rendering the claims indefinite under U.S.C. 112 2nd paragraph.

Examiner interpreted the phrase to mean that any of the set(s) of rules used in the scheduling system/method are stored/located in a predefined location such as a memory location/address, database, library, file, repository, data store, object, subroutine or the like for the purposes of examination.

Regarding Claims 22-24, Claims 22-24 recite the limitation "with the set of rules as altered." Examiner requests clarification, as to which set of rules, the set of fixed business rules, the set of configurable or both, is altered.

Examiner interpreted the claims to read that either the set of fixed, configurable or both sets of rules is altered.

Regarding Claim 26 the disclosure does not clearly define the phrase "defined locations in the first and second algorithms." The phrase "defined locations in the first

and second algorithms" is very subjective and interpretations of the terms vary widely

depending on the person practicing the invention thereby making the phrase vague and

indefinite. Therefore the intended scope of such terminology is unclear thereby

rendering the claims indefinite under U.S.C. 112 2nd paragraph.

Examiner interpreted the phrase to mean that any of the set(s) of rules used in

the scheduling system/method are stored/located in a predefined location such as a

memory location/address, database, library, file, repository, data store, object,

subroutine or the like for the purposes of examination.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8.   Claims 11-15 and 20-25 are rejected under 35 U.S.C. 102(e) as being

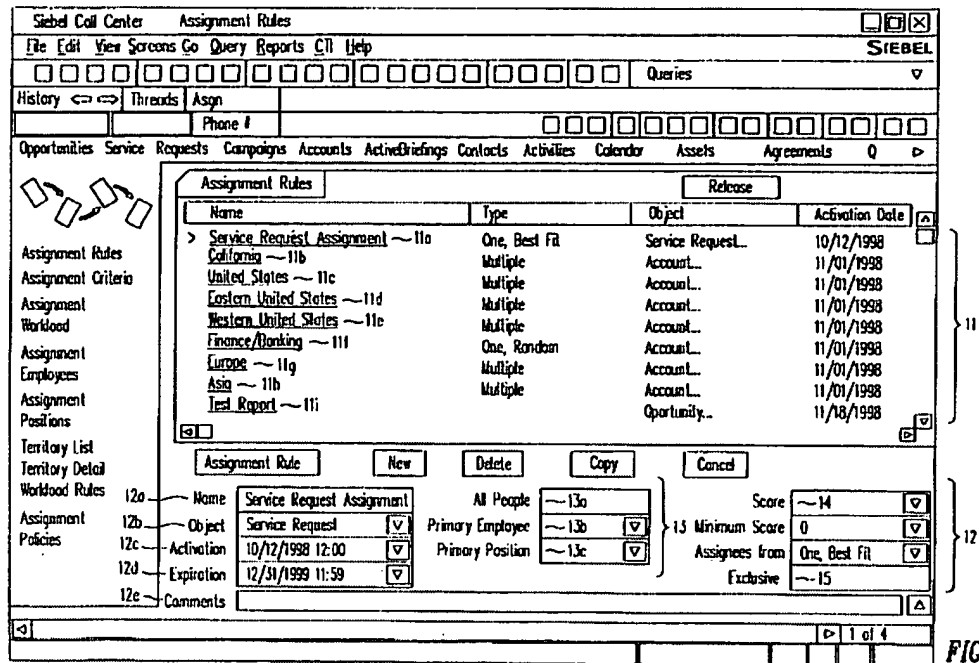anticipated by Brodersen et al., U.S. Patent No. 6,850,895.

Regarding Claims 11-12 Brodersen et al. teach a system and method for

performing a scheduling process comprising (Abstract; Assignment Engine – Steps 1-

10, Columns 13-15; Figures 1, 2, 6, 10):

- programming (entering, providing, setting, inputting, etc.) a programmed

constraint set (rules, constants, parameters, values, etc.) to *supplement or change* a

fixed (default, generic, standard, design-time, static, predetermined, predefined,

installed, etc.) constraint set of a schedule process that performs a process of

scheduling orders (work, jobs, assignments, tasks, activities, etc.) to a worker (user,

resource, personnel, staff, etc.) the fixed constraint set including fixed rules (policies)

and the programmed constraint set including user configurable (defined, customizable,

set, determined, etc.) rules and a set of programmable (editable, settable, configurable,

customizable, dynamic, run-time, etc.) constants (values, parameters, attributes, etc.)

controlling the flow (order, precedence, etc.) of execution of the rules (e.g. users selects

from a list of predefined/fixed/standard scheduling rules (algorithms, assignment modes,

types) such as best fit, round robin, or the like and then configures the rules using a

plurality of configurable constraints, rules and constants that control which fixed rules

are used in the scheduling process (Column 6, Lines 4-38; Column 8, Lines 54-68;

Column 9, Lines 1-15; Column 10, Lines 20-25) as well as how the rules are

interpreted/executed/performed by the scheduling process (Column 5, Lines 1-31;

Figures 1, 2, 6, 10));

   - executing the scheduling process in accordance with the fixed constraint set

(Column 7, Lines 27-43; Assignment Engine – Steps 4-10, Columns 14-15); and

   - altering the execution of the scheduling process according to the fixed

constraint set in accordance with the configurable rules and programmable constants

(Column 3, Lines 10-60; Column 4, Lines 7-10; Column 6, Lines 4-18 and 30-37;
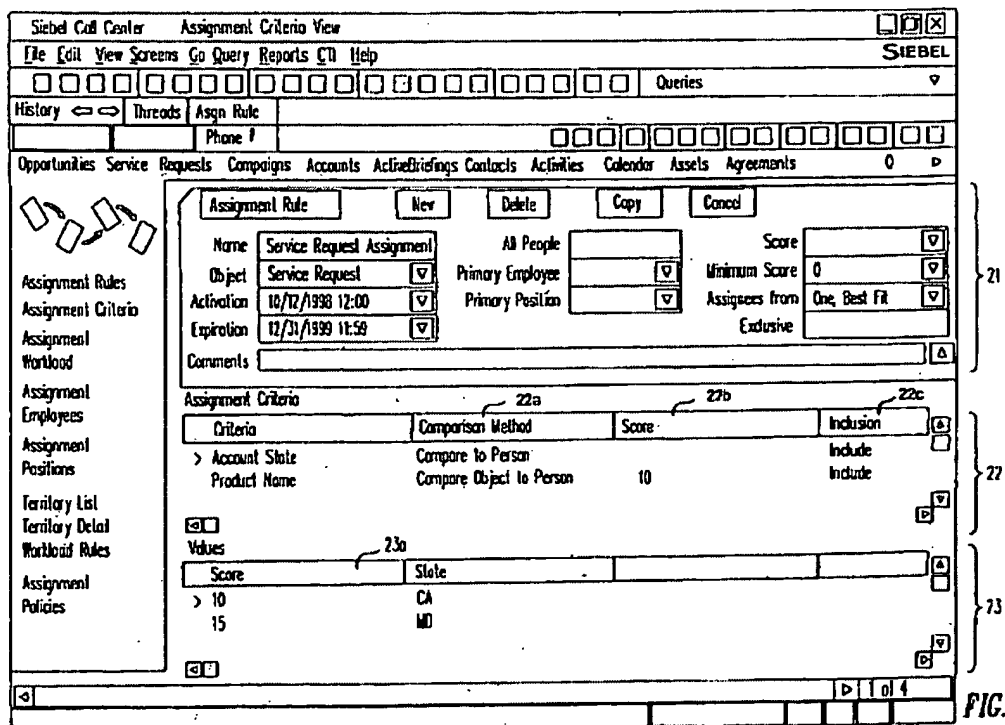
Column 7, Lines 27-43; Figure 10).

FIG. 1

FIG. 2

FIG. 6

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┌─────────────────────────────────┐
│  Find Assignment Rules for Task  │──101
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│      Evaluate the Assignment     │
│        Rules for a Task          │──102
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│     Determine Candidates from    │
│       each Assignment Rule       │──103
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│       Evaluate each Candidate    │
│  against Assignment Rule Criteria│──104
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│    Score each Qualified Candidate│
│      for each Assignment Rule    │──105
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│      Apply Assignment Rule to    │
│   Scored Candidates to Generate  │
│       the List of Assignees      │──106
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│        Evaluate Exclusive        │
│         Assignment Rules         │──107
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│          Determine the           │
│      Primary Assignment Rule     │──108
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│   Determine the Primary Assignee │──109
└─────────────────────────────────┘
                 │
                 ▼
┌─────────────────────────────────┐
│       Generate Assignments       │──110
└─────────────────────────────────┘
```

FIG. 10

Regarding Claim 13 Brodersen et al. teach a system and method for scheduling a process further comprising translating (transforming, converting, mapping, etc.) a (first) set of rules from a defined configurable rule language convention (syntax) into a predefined grammar (convention, syntax, format, etc.; Column 5, Lines 14-17).

Regarding Claim 14 Brodersen et al. teach a system and method for scheduling a process wherein the translating a (first) set of rules further comprises compiling the (first) set of rules into a library (class, package, repository, list, database, etc.) that is used (referenced, accessed, etc.) when the schedule process is performed (Column 5, Lines 14-17; Column 7, Lines 44-51; Figure 7).

Regarding Claim 15 Brodersen et al. teach a system and method for scheduling a process further comprising performing the scheduling process according to a standard (templated, pre-determined, default, pre-defined, basic, installed, fixed, etc.) process except where the programmed (first) set of rules have altered the performance of the scheduling process to a reconfigured (customized, custom, user defined, etc.) process (Column 7, Lines 27-43).

Regarding Claim 20 Brodersen et al. teach a scheduling system and method comprising:

- storing, in memory (database, file, etc.), a set of rules (constraints) having a set of fixed (static, standard, default, design-time, etc.; business) rules and a set of configurable (definable, customizable, etc.) rules programmed (set, defined, determined, created, etc.) by a (service) organization (Column 1, Lines 56-68; Column 2, Lines 37-65; Column 3, Lines 10-40; Column 4, Lines 7-10; Column 5, Lines 1-30 and 45-55; Column 6, Lines 4-18; Column 7, Lines 28-43; Figures 1, 2, 6); and

- executing a schedule process, via a processor coupled to the memory, that performs a schedule process of scheduling orders (tasks, activities, requests, etc.) to workers (users, staff, resources, personnel, etc.) in accordance with the set of fixed (business) rules and altering the execution of the scheduling process according to the set of fixed (business) rules as altered by the set of configurable rules (Assignment Engine – Steps 4-10, Columns 14-15; Figure 10).

Regarding Claim 21 Brodersen et al. teach a scheduling system and method wherein the execution of the scheduling process includes invoking (instantiating, calling, executing, performing, etc.) a set of rules from defined locations (database, memory, object, file, etc.) in a (negotiation) algorithm (subroutine, system, object, etc.; Column 3, Lines 23-35; Column 5, Lines 21-30; Assignment Engine – Steps 1-4, Columns 13-14; Figure 10).

Regarding Claim 22 Brodersen et al. teach a scheduling system further comprising executing an assignment algorithm (method, process, subroutine, process, etc.) in accordance with a set of rules as altered by the set of configurable rules to assign orders (activities, tasks, etc.) to workers (staff, resources, personnel, etc.; Column 1, Lines 56-68; Column 2, Lines 37-65; Column 3, Lines 10-40; Column 4, Lines 7-10; Column 5, Lines 1-30 and 45-55; Column 6, Lines 4-18; Figures 1, 2, 6).

Regarding Claim 23 Brodersen et al. teach a scheduling system further comprising executing an optimization algorithm (method, process, subroutine, process, etc.) in accordance with a set of rules as altered by the set of configurable rules to assign orders to workers (Column 4, Lines 56-68; Figure 10).

Regarding Claim 24 Brodersen et al. teach a scheduling system further comprising executing negotiation, assignment and optimization algorithms (processes, methods, subroutines, code, etc.) in accordance with a set of rules altered by the set of configurable rules to schedule orders to workers (Column 1, Lines 56-68; Column 2, Lines 37-65; Column 3, Lines 10-40; Column 4, Lines 7-10; Column 5, Lines 1-30 and 45-55; Column 6, Lines 4-18; Figures 1, 2, 6).

Regarding Claim 25 Brodersen et al. teach a scheduling system wherein the set of configurable rules programmed by the (service) organization (business, user, entity, etc.) are compiled (translated, transformed, converted, mapped, etc.) into libraries

(repositories, lists, files, etc.) and stored, in memory, according to a defined rule

grammar format (syntax; Column 5, Lines 14-17; Column 7, Lines 27-43; Figure 7).

9.   Claim 26 is rejected under 35 U.S.C. 102(e) as being anticipated by Wolfinger et

al., U.S. Patent No. 6,415,259.

        Regarding Claim 26 Wolfinger et al. teach a scheduling system comprising

(Abstract; Column 2, Lines 54-58 and 63-68; Column 3, Lines 1-68; Column 4, Lines 1-

28; Column 6, Lines 56-68; Column 7, Lines 1-13 and 53-58; Column 9, Lines 1-68;

Columns 10-12; Column 17, Lines 60-68; Figures 4-9):

        - storing a (first) algorithm (subroutine, process, code, method, steps, etc.) for

negotiating a reservation (order, booking, appointment, meeting, etc.) of work orders, a

(second) algorithm for assigning work orders to workers, and a set of rules that are

invoked (used, executed, performed, processed, etc.) from defined locations in the (first

and second algorithms) to govern execution of the algorithms, the set of rules including

a fixed set of (business) rules augmented by a set of programmable rules for altering

the execution of the algorithms from the execution according to only the fixed set of

(business) rules; and

        - executing, via a processor couple to the memory, the algorithms (steps,

process, rules, etc.) in accordance to the set of rules.

        More generally Wolfinger et al. teach that the configurable scheduling system

and method utilizes a plurality of constraints (parameters, values, criteria, etc.) which

alter (effect, determine, direct, etc.) the assignment of workers and orders and that the

constraints are programmed (set, entered, decided upon, etc.) by the user of the system

including but not limited to: utilization percentage, finish before/after, time slot duration,

customer value, customer/order priority, geographic region, calendar and the like

(Column 3, Lines 40-50; Column 4, Lines 16-21; Column 6, Lines 1-9; Column 13, Lines

1-61; "Constraints are also entered by the operation in operation 1020 of Figure 6.

These constraints comprise such items as "start after a specific data" or "finish before a

specific date.", Column 13, Lines 44-46).

Wolfinger et al. teach that the configurable scheduling system and method

utilizes a plurality of fixed constraints (constants, criteria, parameters, etc.) including but

not limited to not yielding empty schedules, minimizing risk, minimizing costs and the

like (Column 2, Lines 15-19 and 63-68; Column 4, Lines 8-11).

Wolfinger et al. further teach a configurable scheduling system and method

comprising a plurality of rules and templates which control/determine (effect, alter,

direct, etc.) the assignment of workers and orders wherein the rules/constraints

comprise fixed and programmed rules wherein users program/configure the constraints:

- "A calendar rule defines the dates and times a workforce resource for a

resource pool is either available or unavailable for assignment." (Column 6, Lines 5-9);

- workflow templates, defined by the user, define order and duration of the set of

tasks necessary to complete an order/assignment, support conditional branching and

are "taken as input into the planning and optimization process" (Column 6, Lines 62-68;

Column 7, Lines 1-12; Column 11, Lines 57-62; Column 12, Lines 44-68; Figures 3-4);

and

- rules processing is best described "as a set of interacting rules that govern

actions in response to known conditions." (Column 9, Lines 41-45).

FIG. 4

FIG. 6

START ONLINE
TRANSACTIONS
1100

WORK POOL MEMBER
ENTERS ACTUAL
COMPLETION DATES
1110

WORKFLOW ENGINE
AUTOMATICALLY
INVOKED
1120

1130
DELTA BETWEEN
ACTUAL AND PLANNED
DATES?

NO

YES

WORKFLOW ENGINE
SENDS ALARM TO
SUPERVISOR
1140

WORK POOL
AVAILABILITY,
EXISTING SCHEDULES
120

END ONLINE
TRANSACTIONS
1150
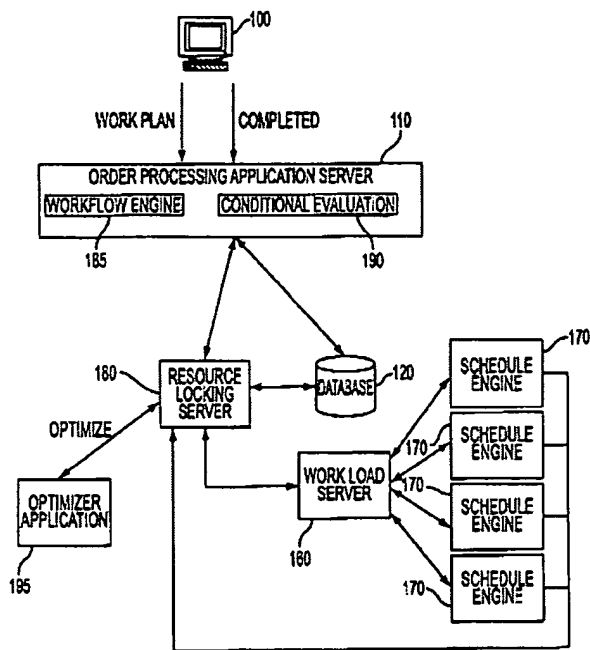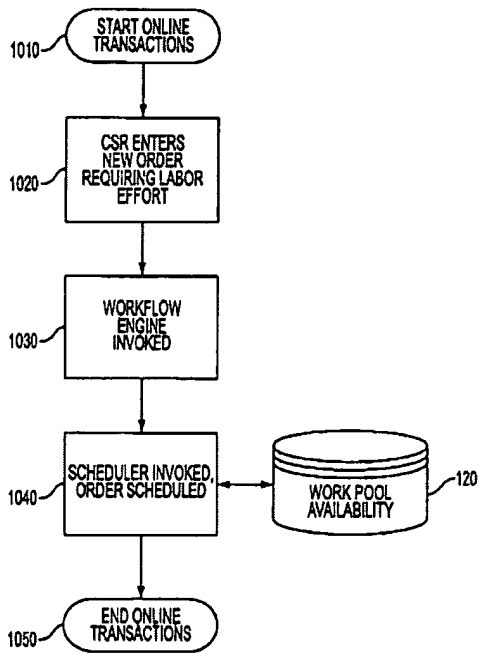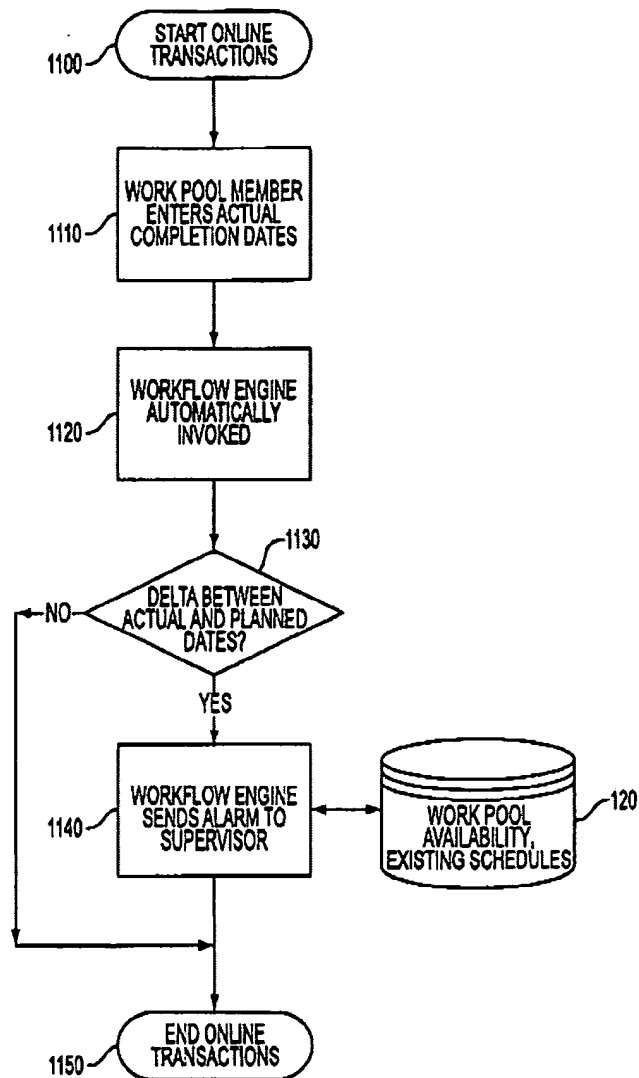
FIG. 7

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

11.   Claims 35-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Wolfinger et al., U.S. Patent No. 6,415,259 in view of Pierreval et al., Dynamic selection

of dispatching rules for manufacturing systems (1997).

Regarding Claim 35 Wolfinger et al. teach a system and method for performing a

scheduling process comprising (Abstract; Column 2, Lines 54-58; Column 3, Lines 1-68;

Column 4, Lines 1-28; Column 6, Lines 56-68; Column 7, Lines 1-13 and 53-58; Column

9, Lines 1-68; Columns 10-12; Column 17, Lines 60-68; Figures 4-9):

- scheduling an order (reservation, appointment, booking, etc.) into a shift

(schedule) of a worker (staff, user, resource, etc.) according to a constraint set, the

constraint set further comprising a set of fixed (static, design time, standard, default,

etc.) rules, a set of configurable rules and a set of constants; and

- configuring (programming) the set of configurable rules to change to act of

scheduling from scheduling the order in accordance with the set of fixed rules to

scheduling in accordance with the set of fixed rules and the set of configurable rules.

Wolfinger et al. does not expressly teach that *constants* are used to control the act of scheduling an order *from* a set of fixed rules *to* a set of configurable rules as claimed.

Pierreval et al. teach utilizing constraints comprising at least rules and constants (thresholds, variables, symptoms, etc.) to control the selection of one or more process scheduling rules (i.e. dynamic selection of dispatching rules; Abstract; Last Paragraph, Page 1575; Paragraphs 1-2, Page 1577; Figure 1) in an analogous art of scheduling orders (jobs, work, etc.) to workers (resources) for the purposes of selecting the most appropriate (optimal, best, desired, etc.) scheduling process (rules) that achieves the organization's (users) objectives/criteria (Paragraph 2, Page 1577; Paragraph 4, Page 1587).

More generally Pierreval et al. teach a scheduling system (Section 4.4, Page 1583) and method for assigning jobs to resources utilizing a plurality of well-known dispatching (schedule, priority, etc.) constraints comprising base (standard, default, background) and programmed rules and constants (Section 3, Pages 1579-1581; Appendix B, Pages 1589-1590), transforming/translating rules into/from one or more formats (Last Paragraph, Page 1578) and optimizing/calibrating the scheduling constraints (Section 4.2, Pages 1581-1582).

It would have been obvious to one skilled in the art at the time of the invention that the system and method for scheduling orders to workers as taught by Wolfinger et

al. would have benefited from controlling the act of scheduling an order *from* a set of

fixed rules *to* a set of configurable rules (i.e. utilizing constraints to control the selection

one or more process scheduling rules) in view of the teachings of Pierreval et al. the

resultant system/method enabling users/organization's to select an appropriate (optimal,

best, desired, etc.) scheduling process to achieves it's business objectives/criteria

(Pierreval et al.: Paragraph 2, Page 1577; Paragraph 4, Page 1587).

Regarding Claim 36 Wolfinger et al. teach a system and method for performing a

scheduling process wherein configuring comprises programming a rule to control which

orders are considered in the schedule process (Column 3, Lines 27-68; Column 12,

Lines 55-68; Column 16, Lines 18-68).

Wolfinger et al. further teach that the scheduling system utilizes a plurality of

rules for determining which orders are to be considered including but not limited to order

priority, due date, cost minimization, tightness, customer value, dependency, location

and the like (Column 2, Lines 63-68; Column 3, Lines 27-68; Column 12, Lines 55-68;

Column 16, Lines 18-68).

Regarding Claim 37 Wolfinger et al. teach a system and method for performing a

scheduling process wherein configuring comprises programming a rule to control which

workers are considered in the schedule process (Column 6, Lines 1-5; Column 5, Lines

34-52; Column 36, Lines 11-27).

Wolfinger et al. further teach that a plurality of rules (constraints, parameters, etc.) are used to control which workers are considered in the schedule process including but not limited to working calendar (calendar rule), existing schedule, availability, location, resource pools (skills) and the like (Column 5, Lines 34-52; Column 6, Lines 1-5; Column 11, Lines 38-65; Column 12, Lines 1-12; Column 36, Lines 11-27).

Regarding Claim 38 Wolfinger et al. teach a system and method for performing a scheduling process wherein configuring comprises programming a rule to control whether an order can be assigned to a worker (Column 2, Lines 63-68; Column 6, Lines 1-5; Column 5, Lines 34-52; Column 36, Lines 11-27).

Wolfinger et al. further teach that a plurality of rules (constraints, parameters, etc.) are used to control whether or not an order can be assigned to a worker including but not limited to working calendar (calendar rule), existing schedule, availability, location, resource pools and the like (Column 5, Lines 34-52; Column 6, Lines 1-5; Column 11, Lines 38-65; Column 12, Lines 1-12; Column 36, Lines 11-27).

Regarding Claim 39 Wolfinger et al. teach a system and method for performing a scheduling process wherein configuring comprises programming a rule to provide a score (value, metric, parameter, etc.) comparing a worker to an order (Column 9, Lines 48-60).

Regarding Claim 40 Wolfinger et al. teach a system and method for performing a scheduling process further comprising programming (setting, configuring, entering, defining, etc.) a set of constants (parameters, values, data, etc.) to control the flow of execution within the rules, the constants replacing global constants that would otherwise require explicit reference in the configured rule sets (i.e. global variables, attributes; (Column 3, Lines 5-11; Column 5, Lines 10-16).

Regarding Claim 41 Wolfinger et al. teach a system and method for performing a scheduling process further comprising negotiating, assigning and optimizing a reservation (Abstract; Column 3, Lines 1-68; Column 4, Lines 1-28; Column 6, Lines 56-68; Column 7, Lines 1-13 and 53-58; Column 9, Lines 1-68; Columns 10-12; Column 17, Lines 60-68; Figures 6-8).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ehnebuske et al., U.S. Patent No. 6,016,477, teach a system and method for controlling the execution of one or more sets of rules (business objects) using one or more constraints stored in predefined locations (rule repositories; i.e. "A system can programmatically decide which rules to attach to a Control Point based on execution context.").

- Archer, Jack, U.S. Patent No. 6,473,748, teaches a system and method for executing/controlling the flow of one or more processes utilizing a plurality of rules (business rules, application rules, etc.) wherein the system/method enables users to program configurable business rules which effect/direct underlying (fixed) application rules.

- Hartley et al., U.S. Patent No. 6,532,465, teach using well known object-oriented and adaptable programming techniques/methods to provide a system and method that enables organizations to utilize generic (standard, fixed, common) systems/methods (engines, applications) to building application/client specific systems/methods by programming a set of user configurable/programmed objects comprising rules and constants (metadata, client defined rules) that control the execution of fixed rules (generic applications, generalized, engines, functional platform).

- Ehnebuske et al., U.S. Patent No. 6,745,381, teach a system and method for programming/configuring fixed sets of objects comprising constants and rules using

user configurable business rules thereby enabling businesses, more specifically business expects and not programmers, to quickly adapt business systems/rules to changing needs/conditions.

- Indseth et al., U.S. Patent Publication No. 2002/0046073, teach a scheduling system and method for assigning orders to workers wherein user configurable constraints are applied to fixed rules/scheduling processes in order to control the scheduling process.

- Boody et al., WO 00/28451, teach a scheduling system and method for assigning work/jobs to workers/resources comprising a plurality of discrete and continuous constraints.

- Panwalkar et al., A Survey of Scheduling Rules (1977) teach a plurality of old and very well known scheduling processes/algorithms.

- De Serres Yves, Simultaneous optimization of flow control and scheduling in queues (1991), teaches a scheduling method that optimizes the flow of control as well as fixed scheduling rules/constraints for assigning work to workers.

- Aytug et al., A Review of Machine Learning in Scheduling (1994) teach a constraint-based scheduling system and method for utilizing configurable constraints (rules, constants, knowledge, learning, etc.) to control/adapt the scheduling process. Aytug et al. further teach a plurality of well known scheduling methods/approaches.

- McFeely et al., Scheduling to Achieve Multiple Criteria In An Air Force Depot CNC Machine Shop (1997) teach a scheduling system and method for assigning jobs to

resources wherein McFeely et al. evaluate the performance of several well-known scheduling rules.

- Marinho et al., Decision Support System for Dynamic Production Scheduling (1999) teach a scheduling system and method for assigning work to workers wherein the system/method selects (i.e. controls the flow) a schedule process/rule from a plurality of fixed/standard scheduling rules based on user configurable constraints (e.g. scheduling policies).

- Connectria Unveils ServeClick to Enable Next Wave of E-Commerce – E-Scheduling of Services (2000) teaches a commercial online scheduling system and method wherein "ServeClick uniquely solves these challenges with patent-pending scheduling algorithms that allow any kind of service with an unlimited number of complex attributes to be scheduled online." The article further teaches that the scheduling system/method provides multiple levels of optimization and is provided as a hosted service.

- MenuHunter.com To Provide Ultimate in Online Restaurant Reservations Using ServeClick from Connectria (2000) teaches the public use and/or sale of an online scheduling system and method that enables organizations to configure fixed schedule algorithms/rules thereby allowing the business negotiate, reserve and optimize schedules.

- RestaurantRow.com Selects ServeClick from Connectria to Power Its Advanced Online Restaurant E-Scheduling (2000) teaches a commercial scheduling system and method that utilizes linear programming and well known object-oriented

technologies/languages wherein organizations as well as users configure/program

scheduling rules ("ServeClick technology retrieves, stores and provides sophisticated

seating preferences of RestaurantRow.com members, such as the preference for

smoking, non-smoking, indoor versus patio, next to or across from guests, square or

circular table, etc. to ensure optimal seating arrangements according to each individuals

unique preferences."; "ServeClick technology enables restaurant owners to set

scheduling guidelines to maximize table utilization.").

  - ServeClick Trademark (2000) teaches the first use of ServeClick as least as

early as November 8, 1999.

  - ServeClick.com Web Pages (2000) teaches a "scheduling engine uses the

service provider's business rules to make the most efficient use of resources and to

optimize scheduling" wherein the "software engine" is used by several organizations to

enable their customers to negotiate and schedule/reserve appointments (orders) via the

web. ServeClick.com further teaches that the system/method "has been designed to be

highly configurable for various types of services and various types of providers.

ServeClick views a business as having multiple service offerings. Service offerings

require resources and each resource has a number of attributes. With this ability to

define business rules in this way, ServeClick can be extremely flexible and intelligent as

it manages resources to schedule appointments."

  - Tkach et al., Visual Modeling Technique (1996) teach a plurality of old and very

well known object-oriented system analysis, design and development techniques

including but not limited to the utilization of objects to encapsulate business constraints,

the constraints comprising business rules, both static and dynamic, and meta-data

(constants, etc.).

- Martin, James, Principles of Object-Oriented Analysis and Design (1993)

teaches a plurality of old and very well known object-oriented techniques for building

object-oriented systems/methods including but not limited to the use of rules.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Scott L. Jarrett whose telephone number is (571) 272-

7033. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hafiz Tariq can be reached on (571) 272-6729. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

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TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600